VOLUME 22, 1998
CONTENTS INDEX

Volume 22 Number 1 **January/February 1998**

Full-length Papers

P. Roch, P. Ville and E. L. Cooper 1 Characterization of a 14 kDa plant-related serine protease-inhibitor and regulation of cytotoxic activity in earthworm coelomic fluid

I. Eue, E. Kauschke, W. Mohrig and E. L. Cooper 13 Isolation and characterization of earthworm hemolysins and agglutinins

S. K. Malham, N. W. Runham and C. J. Secombes 27 Lysozyme and antiprotease activity in the lesser octopus *Eledone cirrhosa* (Lam.) (cephalopoda)

B. J. Davids and T. P. Yoshino 39 Integrin-like RGD-dependent binding mechanism involved in the spreading response of circulating molluscan phagocytes

L. H. Bramble and R. S. Anderson 55 A comparison of the chemiluminescent response of *Crassostrea virginica* and *Morone saxatilis* phagocytes to zymosan and viable *Listonella anguillarum*

J. H. W. M. Rombout, P. H. M. Joosten, M. Y. Engelsma, A. P. Vos, N. Taverne and J. J. Taverne-Thiele 63 Indications for a distinct putative T cell population in mucosal tissue of carp (*Cyprinus carpio* L.)

S. Tozaki and S. Tochinai 79 Effects of cyclosporin A on skin graft rejection in *Xenopus*

A. Koniski and N. Cohen 91 Axolotl (*Ambystoma mexicanum*) lymphocytes produce and are growth-inhibited by transforming growth factor-beta

L. L. Wells, V. K. Lowry, J. R. DeLoach and M. H. Kogut 103 Age-dependent phagocytosis and bactericidal activities of the chicken heterophil

G. Gunnes, C. McL. Press, A. Tverdal and T. Landsverk 111 Compartments within the lymph node cortex of calves and adult cattle differ in the distribution of leukocyte populations: an immunohistochemical study using computer-assisted morphometric analysis

125 Ad Hoc Reviewers

127 Abstracts of the 9th Scientific Meeting of the Japanese Association for Developmental and Comparative Immunology (JADCI)

Volume 22 Number 2 **March/April 1998**

Full-length Papers

S. Tunkijjanukij and J. A. Olafsen 139 Sialic acid-binding lectin with antibacterial activity from the horse mussel: further characterization and immunolocalization

K. Nakayama and T. Maruyama 151 Differential production of active oxygen species in photo-symbiotic and non-symbiotic bivalves

D. L. Evans, J. H. Leary Jr, III, P. Nadella and L. Jaso-Friedmann 161 Evidence for antigen recognition by nonspecific cytotoxic cells: initiation of ^{3}H-thymidine uptake following stimulation by a protozoan parasite and homologous cognate synthetic peptide

A. J. Ainsworth and B. Boyd 173 Intracellular signaling events in superoxide generation and adhesion of channel catfish, *Ictalurus punctatus* rafinesque, neutrophils to the extracellular matrix protein fibrinogen

V. Lund and J. A. Olafsen 185 A comparative study of pentraxin-like proteins in different fish species

U. Fischer, M. Ototake and T. Nakanishi 195 In vitro cell-mediated cytotoxicity against allogeneic erythrocytes in ginbuna crucian carp and goldfish using a non-radioactive assay

A. W. Dodds, S. L. Smith, R. P. Levine and A. C. Willis 207 Isolation and initial characterisation of complement components C3 and C4 of the nurse shark and the channel catfish

T. L. Horton, P. Ritchie, M. D. Watson and J. D. Horton 217 Natural cytotoxicity towards allogeneic tumour targets in *Xenopus* mediated by diverse splenocyte populations

T. L. Koppenheffer, K. D. Spong and H. M. Falvo 231 The complement system of the marsupial *Monodelphis domestica*

K.-H. Nam, H. Akari, K. Terao, H. Ohto, S. Itagaki and Y. Yoshikawa 239 Age-dependent remodeling of peripheral blood $CD4^{+}$ $CD8^{+}$ T lymphocytes in cynomolgus monkeys

Volume 22 Number 3 **May/June 1998**

Special Issue: Ontogeny and Phylogeny of Commitment and Differentiation in the Hematopoietic and Immune System

Full-length Papers

F. Dieterlen-Lièvre and A. Cumano	249	Editorial
N. S. Trede and L. I. Zon	253	Development of T-cells during fish embryogenesis
J. B. Turpen	265	Induction and early development of the hematopoietic and immune systems in *Xenopus*
D. Dunon, N. Allioli, O. Vainio, C. Ody and B. A. Imhof	279	Renewal of thymocyte progenitors and emigration of thymocytes during avian development
A. L. Medvinsky and E. A. Dzierzak	289	Development of the definitive hematopoietic hierarchy in the mouse
J. A. Garcia-Porrero, A. Manaia, J. Jimeno, L. L. Lasky, F. Dieterlen-Lièvre and I. E. Godin	303	Antigenic profiles of endothelial and hemopoietic lineages in murine intraembryonic hemogenic sites
H. Yoshida, N. Takakura, M. Hirashima, H. Kataoka, K. Tsuchida, S. Nishikawa and S.-I. Nishikawa	321	Hematopoietic tissues, as a playground of receptor tyrosine kinases of the PDGF-receptor family
R. Auerbach. S.-J. Wang, D. Yu, B. Gilligan and L.-s. Lu	333	Role of endothelium in the control of mouse yolk sac stem cell differentiation
K. Lucas, D. Vremec, L. Wu and K. Shortman	339	A linkage between dendritic cell and T-cell development in the mouse thymus: the capacity of sequential T-cell precursors to form dendritic cells in culture
H.-R. Rodewald and C. Haller	351	Antigen-receptor junctional diversity in growth-factor-receptor mutant mice
K. L. Anderson, N. C. Moore, D. E. J. McLoughlin, E. J. Jenkinson and J. J. T. Owen	367	Studies on thymic epithelial cells *in vitro*
J.-C. Weill and C.-A. Reynaud	379	Galt versus bone marrow models of B cell ontogeny

Volume 22 Number 4 **July/August 1998**

Full-length Papers

J. A. Mackintosh, A. A. Gooley, P. H. Karuso, A. J. Beattie, D. R. Jardine and D. A. Veal 387 A gloverin-like antibacterial protein is synthesized in *Helicoverpa armigera* following bacterial challenge

M. A. Rycyzyn, M. R. Wilson, L. W. Clem and N. W. Miller 401 Evidence for Jak-stat interaction in channel catfish lymphoid cells

A. E. F. Van Nerom, R. Ducatelle and F. Haesebrouck 407 Oxygen radicals and nitric oxide production by turkey respiratory macrophages

N. F. Neumann, D. Barreda and M. Belosevic 417 Production of a macrophage growth factor(s) by a goldfish macrophage cell line and macrophages derived from goldfish kidney leukocytes

T. Itou, T. Iida and H. Kawatsu 433 Evidence for the existence of cytochrome *b*558 in fish neutrophils by polyclonal anti-peptide antibody

A. M. O'Dowd, A. E. Ellis and C. J. Secombes 439 Binding of immune complexes to Atlantic salmon peripheral blood leucocytes

P. Grant, R. H. Clothier, R. O. Johnson and L. N. Ruben 449 *In situ* lymphocyte apoptosis in larval *Xenopus laevis*, the South African clawed toad

K. G. Gould, M. A. Akinbami and D. R. Mann 457 Effect of neonatal treatment with a gonadotropin releasing hormone antagonist on developmental changes in circulating lymphocyte subsets: a longitudinal study in male rhesus monkeys

Volume 22 Number 5/6 **September–December 1998**

Full-length Papers

M. Wiens, C. Koziol, R. Batel and W. E. G. Müller	469	Phenylalanine hydroxylase from the sponge *Geodia cydonium*: implication for allorecognition and evolution of aromatic amino acid hydroxylases
L. Ballarin, F. Cima and A. Sabbadin	479	Phenoloxidase and cytotoxicity in the compound ascidian *Botryllus schlosseri*
P. N. S. Rodrigues, T. T. Hermsen, A. van Maanen, A. J. Taverne-Thiele, J. H. W. M. Rombout, B. Dixon and R. J. M. Stet	493	Expression of *MhcCyca* Class I and Class II molecules in the early life history of the common carp (*Cyprinus carpio* L.)
M. B. Schrøder, A. J. Villena and T. Ø. Jørgensen	507	Ontogeny of lymphoid organs and immunoglobulin producing cells in Atlantic cod (*Gadus morhua* L.)
I. Paul, C. Mandal and C. Mandal	519	Effect of environmental pollutants on the C-reactive protein of a freshwater major carp, *Catla catla*
M. K. Frøystad, M. Rode, T. Berg and T. Gjøen	533	A role for scavenger receptors in phagocytosis of protein-coated particles in rainbow trout head kidney macrophages
F. A. A. Weyts, G. Flik, J. H. W. M. Rombout and B. M. L. Verburg-van Kemenade	551	Cortisol induces apoptosis in activated B cells, not in other lymphoid cells of the common carp, *Cyprinus carpio* L.
F. A. A. Weyts, G. Flik and B. M. L. Verburg-van Kemenade	563	Cortisol inhibits apoptosis in carp neutrophilic granulocytes
Z. Zupanovic, G. Lopez, A. Hyatt, B. J. Shiell and A. J. Robinson	573	An improved enzyme linked immunosorbent assay for detection of anti-ranavirus antibodies in the serum of the giant toad (*Bufo marinus*)
S. J. Jozefowski and B. Plytycz	587	Characterization of β-adrenergic receptors in fish and amphibian lymphoid organs

J. Robert and N. Cohen 605 Ontogeny of CTX expression in *Xenopus*

D. J. Caldwell, D. Y. Caldwell, A. P. McElroy, J. G. Manning and B. M. Hargis 613 Basp-induced suppression of mitogenesis in chicken, rat and human BPL

J. Chodosh, R. E. Nordquist and R. C. Kennedy 621 Comparative anatomy of mammalian conjunctival lymphoid tissue: a putative mucosal immune site

I Index to Volume 22